

9/24/18 Update			Previously Disclosed, Media Reports, Continued Public Interest Records Requests
	TOPIC	TIMELINE & ACTIONS	
TetrattechEC Fraud Recovery	Navy work plans for redoing fraudulent work – including soil and interior building materials scans		
	<ul style="list-style-type: none"> Parcel G is City's top priority 	Navy received comments on their Parcel G Removal Site Evaluation Work Plan from: TetrattechEC; and four agencies; USEPA, DTSC/CDPH combined, Oak Ridge Associated Universities (ORAU), and SFDPH; three community groups; Greenaction/GGU EJLC, Committee to Bridge the Gap and Our City San Francisco; and three individuals. Navy placed a statement about their next steps on the webpage under Timely Topics.	
		Navy plans to resolve all comments and gain Regulatory Agencies' approval and then proceed with work. Navy plans Draft Final document to Regulators on 9/28.	
	<ul style="list-style-type: none"> Parcel D-2, UC-1, UC-2, UC-3 and then subsequent parcels Community Meetings 	<p>Work plan issuance TBD - subsequent to approval of universal protocols embedded in Parcel G Work Plan.</p> <p>Presentation Monday, September 24 by CDPH at the HPS CAC Environment and Reuse Subcommittee – main topic of the Parcel A scan (not Parcel G). Navy Open House on October 3 – main topic will be Parcel G.</p>	
	CA DPH Radiological Health Branch (RHB), as expert, to evaluate Parcel A		
	Weekly CDPH activities	On Sept 11, Navy deck marker removed from inaccessible fenced area near DPW trailer near the corner of Donahue and Galvez. This was an unexpected find. Extensive news coverage once CDPH issued their weekly report. Navy posted statement on their webpage. CDPH continuing routine scanning - have not issued a new report yet for work subsequent to the finding of the deck marker – expect report later this week.	
	Meetings with Parcel A residents	July 5, 26, Sept 6 and 19 RHB meetings with Parcel A residents went well. Sept 19 CDPH explained in detail about the deck marker and significance of 90% of scanned areas done and this was the only find. Residents asked about possible ground floor scanning – CDPH committed to get back to them. Artist representative also attended.	
	SFDPH independent follow up to Sept 11 find	SFDPH independent expert examined the deck marker and made measurements. Measurements consistent with the CDPH and Navy measurements. Final SFDPH technical memo with transmittal memo attached. CDPH and SFDPH experts have coordinated on ways to best describe the measurements in terms that can be understood by the general public.	

- See attached Navy HPNS Fieldwork Tracking and Document Tracking Sheets for ongoing Navy work
- Amy to stay informed with 2nd and 4th Tuesday Navy phone calls and monthly group meetings



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(678) 513-4565

September 24, 2018

Amy Brownell, P.E.
Environmental Health Branch
Population Health Division
San Francisco Department of Public Health
1390 Market St., Suite 210
San Francisco, CA 94102

Amy –

Attached is the report from M. H. Chew & Associates, Inc. (CAI) summarizing the radiological measurements performed on the radioactive object (deck marker) recovered from Hunters Point Shipyard on September 11, 2018. It includes measurements of the exposure rate at multiple distances from the object and a gamma ray spectrum confirming radium-226 and its decay products as the radioisotopes present.

The exposure rates measured by CAI are similar to the measurements previously reported by the Radiological Health Branch of the California Department of Public Health (CDPH). Both sets of measurements indicate that the object contains little radioactivity and therefore did not represent a hazard to the public. The relative comparisons offered by CDPH (of the deck marker measurements being less than radiation from a dental X-ray or a transcontinental flight) are consistent with the CAI measurements and represent the low end of background radiation experienced by the public.

Please let me know if you have any questions on the report.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert E. Burns, Jr.", with a long, sweeping flourish extending to the right.

Robert E. Burns, Jr., CHP

Final Analysis Report Radio-luminescent marker found at Hunters Point Shipyard San Francisco, CA

Joel Swanson, MS, CHP
Robert Morris, MS, CHP
Melton H. Chew, BS

For

City and County of San Francisco Department of Public Health



Prepared by



M. H. Chew & Associates, Inc.
*Environmental, Safety and Health
Engineering, Radiation Protection and Nuclear Safety*

7633 Southfront Road, Suite 170
Livermore, CA 94551
September 21, 2018

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M.H. Chew & Associates, Inc.
Environmental, Safety and Health
Engineering, Radiation Protection and Nuclear Safety

Final Analysis Report Radio luminescent marker found at Hunters Point Shipyard

Prepared by:

Date: 09/24/2018

Joel Swanson, MS, CHP

Date: 09/24/2018

Melton H. Chew, BS

Peer review performed by

Date: 09/24/2018

Robert Morris, MS, CHP, CIH



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Figure 1: The background-subtracted spectrum of the item at three inches from the detector is shown in black. The spectrum in blue is a spectrum of a known radium-226 source. All observed features in the spectrum of the item of interest are due to radium-226 and its decay progeny.	2
Figure 2: CDPH photo of naval deck marker on the left 1.5 inches in diameter containing radium found during walkover scanning survey.	3
Figure 3: Picture of item measured on the right ("32 picture of item.jpg.") The plastic cover is cracked, and the back deeply scored. Dimensions are consistent with those of a deck marker.	3



Final Analysis Report

Radioluminescent Marker Found at Hunter's Point Shipyard

1.0 Summary

The analyst was tasked with assessing an item found at the Hunters Point Shipyard. The item was found during a survey of a hillside by Department of Public Health (CDPH) personnel (ref. phone conference with Mr. Eric Pulley, CDPH, on Sep 13, 2018). The item was localized and extracted by APTIM personnel (ref. phone conference with Mr. Randall Killpack, September 13, 2018). Gamma spectrum files were obtained by Joel Swanson of M.H. Chew & Associates, Inc. (CAI) on September 12, 2018. Spectrum files were acquired using a FLIR R400 IdentiFINDER2 system, which used a lanthanum bromide scintillation detector.

Subsequently, exposure rate measurements were performed on September 19, 2018. Gamma exposure rates were obtained by Melton H. Chew of M.H. Chew & Associates, Inc. Instruments used were WB Johnson Model DSM-501 microR meter and Berkeley Nucleonics Corporation SAM945 RIID.

2.0 Data

The following files were used in for analysis:

"Item at 3 inches 266.ANSI N42.42 2012.n42"

"Background 262.ANSI N42.42 2012.n42"

"32 picture of item.jpg"

3.0 Technical assessment

Exposure rates were obtained for local measurement area background, and from the item at 12 inches and 3 inches. Exposure rates are median values of 4-5 readings, with the local background subtracted. The deck marker was examined on the both sides (see Figure 3). There are no identifiable markings on either side. Exposure rates measured from front and back were similar.



4.0 Spectrum and photos of item

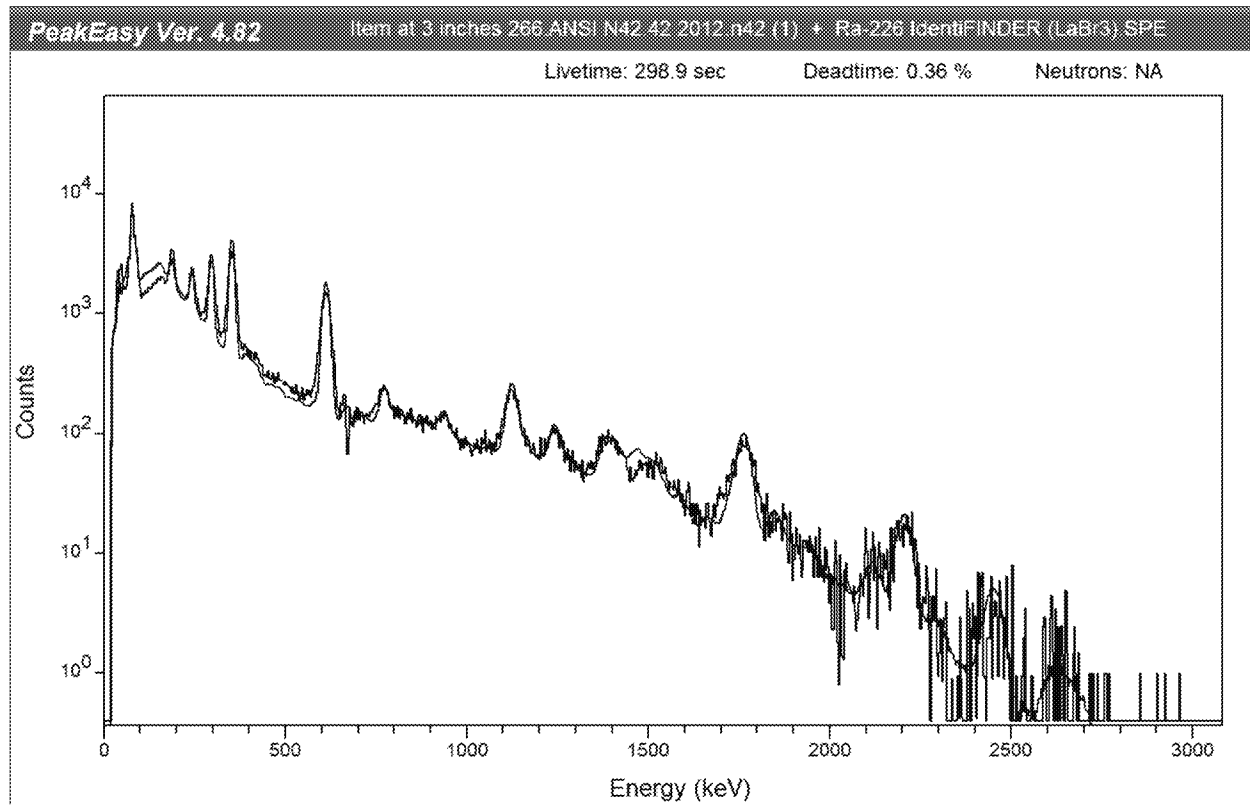


Figure 1: The background-subtracted spectrum of the item at three inches from the detector is shown in black. The spectrum in blue is a spectrum of a known radium-226 source. All observed features in the spectrum of the item of interest are due to radium-226 and its decay progeny.

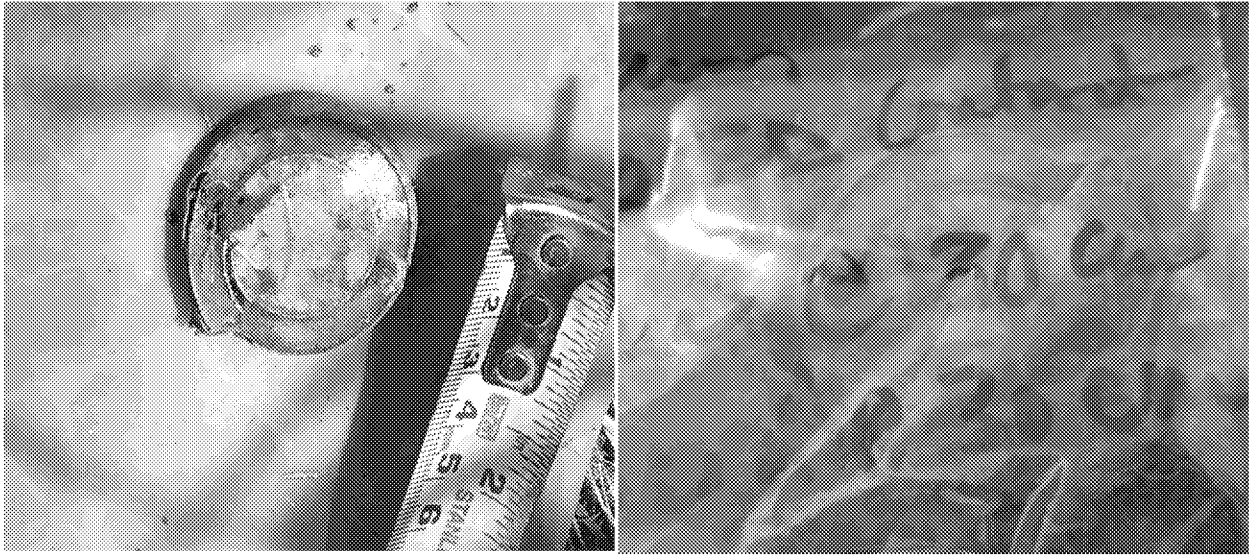


Figure 2: CDPH photo of naval deck marker on the left 1.5 inches in diameter containing radium found during walkover scanning survey.

Figure 3: Picture of item measured on the right ("32 picture of item.jpg.") The plastic cover is cracked, and the back deeply scored. Dimensions are consistent with those of a deck marker.

4.1 Exposure rate measurements

Table 1: CAI observed exposure rates measurements of exposed item after excavation using a WB Johnson Model DSM-501 microR meter and Berkeley Nucleonics Corporation SAM945 RIID

CAI Data Observed Data at 1 foot ($\mu\text{R/hr}$)	CAI Data Observed Data at 3 inches ($\mu\text{R/hr}$)
20	118
19	115
20	120
18	116
19	
20	
Median = 19	Median = 117
Bkg = 7	Bkg = 7
Net = 12	Net = 110

As shown in Table 1, the median gross exposure rate measurement at one foot was 19 $\mu\text{R/hr}$, which is equal to 0.019 mR/hr. In this case, this can be presumed to be equal to a dose equivalent rate of 0.019 mrem/hr. The net observed exposure rate (with background subtracted) was 12 $\mu\text{R/hr}$, which is equal to a net dose equivalent rate of 0.012 mrem/hr.

Hunters Point Naval Shipyard Fieldwork Tracking Sheet September 2018

Item	Project and Points of Contact	September	October	November	Contact Info
CERCLA Parcel Fieldwork					
Basewide					
1	Radiological Support	General Basewide Support	General Basewide Support	General Basewide Support	leslie.howard@navy.mil
	RPM: Leslie Howard				(619) 524-5903
	PM: Lisa Bercik, APTIM				
2	Transportation & Disposal	T&D Misc Materials	Demobilization	None	leslie.howard@navy.mil
	RPM: Leslie Howard				(619) 524-5903
	PM: Don Clause, Arcadis				
3	Groundwater Monitoring Program	Groundwater Sampling	None	None	leo.m.larson.ctr@navy.mil
	RPM: Leo Larson				(619) 524-5257
	PM: Erin Hunter, Trevel				
Parcel B-1					
1	IR-10 SVE System	SVE O&M and Optimization	SVE O&M and Optimization	SVE O&M and Optimization	christopher.ota.ctr@navy.mil
	RPM: Chris Ota				(619) 524-5853
	PM: John Sourial, Innovex/ERRG				
Parcel B-2					
1	IR-26 Groundwater Study	Sampling Event	None	None	samantha.l.knolle@navy.mil
	RPM: Samantha Knolle				
	PM: Curtis Moss, KMEA				
Parcel C					
1	Remedial Action - RU-C1, C2, C4, and C5	SVE System/Oversight	SVE System/Oversight	SVE System/Oversight	christopher.ota.ctr@navy.mil
	RPM: Chris Ota				(619) 524-5853
	PM: Mitra Fattahipour, Insight				
2	Petroleum Hydrocarbon Corrective Action	Soil Boring Installation/Soil and Groundwater Sampling	Soil Boring Installation/Soil and Groundwater Sampling	Soil Boring Installation/Soil and Groundwater Sampling	sharon.ohannessian.ctr@navy.mil
	RPM: Sharon Ohannessian				(202) 685-1627
	PM: Philip Stearns, AMEC Foster Wheeler				
Parcel D-1					
1	Durable Cover	Phase II Durable Cover Gamma Walk-Over Surveys	Phase II Durable Cover Installation	Phase II Durable Cover Installation	samantha.l.knolle@navy.mil
	RPM: Samantha Knolle				
	PM: Lisa Bercik, APTIM				
Parcel E					
1	Petroleum Hydrocarbon Corrective Action	Soil Boring & Monitoring Well Installation/Sampling	Soil Boring & Monitoring Well Installation/Sampling	Soil Boring & Monitoring Well Installation/SamplingExcavation	sharon.ohannessian.ctr@navy.mil
	RPM: Sharon Ohannessian				(202) 685-1627
	PM: Philip Stearns, AMEC Foster Wheeler				
Parcel E-2					
1	Revetment, Upland Slurry Wall, Grading	Site grading, onsite consolidation, shoreline revetment, upland slurry wall	Site grading, onsite consolidation, shoreline revetment, upland slurry wall	None	leslie.howard@navy.mil
	RPM: Leslie Howard				(619) 524-5903
	PM: Nels Johnson, APTIM				
2	Protective Liner, Wetlands, and LG Control System	None	Project Kick-Off Meeting	Pre-construction activities; mobilization; utility surveys; import clean fill	leslie.howard@navy.mil
	RPM: Leslie Howard				(619) 524-5903
	PM: Lou Ehrhard, KEMRON				

Document prepared by Navy for monthly Base Closure Team meetings

**Hunters Point Naval Shipyard
Document Tracking Sheet
September 2018**

		DRAFT					RTCs		DRAFT FINAL		FINAL				
Item	Document Title & Information	Draft to Agencies	Agency Comments					RTCs to Agencies	Draft Final to Agencies	Final to Agencies		Comments			
			Date Due	USEPA	DTSC	WATER BOARD	CITY OF SF								
CERCLA, Petroleum, and Radiological Reports															
All															
1	Five-Year Review	07/09/18	✓	09/14/18					TBD		10/30/18		11/30/18		FFA Document
	RPM: Stephen Banister														
	PM: Doug Bielskis, Innovex-ERRG														
Parcel C															
1	RAWP - Building 253/211	04/27/18	✓	07/11/18				✓	TBD		NA		09/26/18		FFA Document
	RPM: Chris Ota														
	PM: Brett Womack, Gilbane														
2	RAWP - Historical District	07/09/18	✓	09/12/18					TBD		NA		10/27/18		FFA Document
	RPM: Leslie Howard														
	PM: Lisa Bercik, Aptim														
Parcel D-1															
1	Rad RACR - Phase II	08/31/17	✓	11/17/17	✓	✓		✓	01/11/18	✓	01/29/18	✓	09/11/18		FFA Document
	RPM: Leslie Howard														
	PM: Ed Palser, Gilbane														
2	Final Status Survey - Former NRDL	08/31/17	✓	11/17/17	✓	✓		✓	01/11/18	✓	01/29/18	✓	TBD		
	RPM: Leslie Howard														
	PM: Ed Palser, Gilbane														
3	Final Status Survey - Ship Berths 14, 21, 22, and 29	08/31/17	✓	11/17/17	✓	✓		✓	01/11/18	✓	01/29/18	✓	TBD		
	RPM: Leslie Howard														
	PM: Ed Palser, Gilbane														
Parcel E															
1	Execution Plan - SS/SD Removal Action	10/09/18		11/26/18					TBD		NA		01/10/19		FFA Document
	RPM: Stephen Banister														
	PM: Philip Sterns, AMEC FW														
2	LUC RD	05/31/18	✓	07/15/18				✓	TBD		09/20/18		10/22/18		FFA Document
	RPM: Paul Stoick														
	PM: CES, Doug Bielskis														
3	RAMP	10/01/18		11/16/18					TBD		12/31/18		01/31/19		FFA Document
	RPM: Paul Stoick														
	PM: CES, Doug Bielskis														
4	RAWP - Excavation, SVE, and GW Treatment	12/03/18		01/18/19					TBD		03/05/19		04/05/19		FFA Document
	RPM: Paul Stoick														
	PM: Tim Kemper, Aptim														
5	RAWP - IR02 Northwest and Durable Cover	11/28/18		01/14/19					TBD		03/01/19		04/02/19		FFA Document
	RPM: Paul Stoick														
	PM: Tim Kemper, Aptim														
6	RAWP - IR03, Shoreline Const., Soil Cover, and Rad Scans	12/03/18		01/18/19					TBD		03/05/19		04/05/19		FFA Document
	RPM: Paul Stoick														
	PM: Brett Womack, Gilbane														
Parcel E-2															
1	RAWP - Protective Liner, Wetlands, and LG Control System	02/16/18	✓	04/03/18	✓			✓	TBD		TBD		09/27/18		FFA Document
	RPM: Leslie Howard														
	PM: Lou Ehrhard, KEMRON														
2	RACR - Revetment, Upland Slurry Wall, and Grading	11/26/18		01/01/19					TBD		02/25/19		03/28/19		FFA Document
	RPM: Leslie Howard														
	PM: Nels Johnson, Aptim														

Document prepared by Navy for monthly Base Closure Team meetings

Hunters Point Naval Shipyard Document Tracking Sheet September 2018

		DRAFT						RTCs		DRAFT FINAL		FINAL		
Item	Document Title & Information	Draft to Agencies		Agency Comments				RTCs to Agencies		Draft Final to Agencies		Final to Agencies	Comments	
				Date Due	USEPA	DTSC	WATER BOARD							CITY OF SF
Parcel F														
1	Radiological Characterization Surveys Work Plan (Piers/Pens)	02/27/18	✓	05/21/18	✓	✓		07/19/18	✓	07/19/18	✓	09/14/18	FFA Document; Revised Final	
	RPM: Liz Roddy													
	PM: Lisa Bercik, Aptim													
2	Bathymetric Survey and Former Parcel B Piers Investigation Report	07/09/18	✓	08/09/18	✓	✓	✓	09/24/18		09/24/18		10/25/18	FFA Document	
	RPM: Sharon Ohannessian													
	PM: Mitra Fattahipour, ECC													
3	Record of Decision	08/13/18	✓	10/29/18				TBD		12/17/18		01/18/19	FFA Document; EPA 30-day Extension	
	RPM: Sharon Ohannessian													
	PM: Mitra Fattahipour, ECC													
4	Finger Piers Characterization Surveys Report	11/29/18		01/14/19				TBD		NA		02/28/19	FFA Document	
	RPM: Liz Roddy													
	PM: Lisa Bercik, Aptim													

✓ Production or review of document is complete. LUC = Land use control

X Received notification of no comments or comments deferred to other agency.

DTSC = Department of Toxic Substances Control

USEPA = U.S. Environmental Protection Agency

FS = Feasibility study

FSS = Final status survey

NA = Not applicable

PM = Project manager

PP = Proposed plan

RACR = Remedial action completion report

RAWP = Remedial action work plan

TBD = To Be Determined

Report titles highlighted in yellow have a requested expedited review period.

FFA = Federal Facilities Agreement (i.e. refers to number of days in review period)

Report titles highlighted in blue are currently under regulatory review.

Report titles highlighted in gray have been finalized.

Document prepared by Navy for monthly Base Closure Team meetings